DATA VALIDATION REPORT

Gold King Mine Long Term Monitoring

SAMPLE DELIVERY GROUP: 680-130444-1

Prepared by

MEC^X
12269 East Vassar Drive
Aurora, CO 80014

I. INTRODUCTION

Task Order Title:	Gold King Mine Long Term Monitoring
Project No.:	20408.012.001.0397.00
Sample Delivery Group:	680-130444-1
EPA Project Manager:	Steve Merritt
Weston Project Manager:	Mark Blanchard
TDD No.:	0001/1510-02
Matrix:	Water/Sediment
QC Level:	Stage 2A
No. of Samples:	16
No. of Reanalyses/Dilutions:	0
Laboratory:	TestAmerica - Savannah

Table 1. Sample Identification

Location ID	*Lab Sample Name*	*Matrix Type*	*Collection Date*	*Method*
FW-040_100216	680-130444-1	Water	10/2/16 9:00 AM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
FW-040_SED_100216	680-130444-2	Sediment	10/2/16 9:00 AM	6010C, 6020A, 7471A
LVW-020_100216	680-130444-3	Water	10/2/16 11:40 AM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
LVW-020_SED_100216	680-130444-4	Sediment	10/2/16 11:40 AM	6010C, 6020A, 7471A
SJ4C_092916	680-130444-5	Water	9/29/16 11:40 AM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
SJ4C_SED_092916	680-130444-6	Sediment	9/29/16 11:40 AM	6010C, 6020A, 7471A
SJBB_093016	680-130444-7	Water	9/30/16 10:00 AM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
SJBB_093016D	680-130444-9	Water	9/30/16 10:00 AM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
SJBB_SED_093016	680-130444-8	Sediment	9/30/16 10:00 AM	6010C, 6020A, 7471A
SJBB_SED_093016D	680-130444-10	Sediment	9/30/16 10:00 AM	6010C, 6020A, 7471A
SJCH_100116	680-130444-11	Water	10/1/16 2:00 PM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
SJCH_SED_100116	680-130444-12	Sediment	10/1/16 2:00 PM	6010C, 6020A, 7471A
SJMC_092916	680-130444-13	Water	9/29/16 4:00 PM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B

Location ID	Lab Sample Name	Matrix Type	Collection Date	Method
SJMC_SED_092916	680-130444-14	Sediment	9/29/16 4:00 PM	6010C, 6020A, 7471A
SJMH_093016	680-130444-15	Water	9/30/16 1:45 PM	1631E, 200.7, 200.8, 245.1, 2320B, 2340B, 2540 D, 5310 B
SJMH_SED_093016	680-130444-16	Sediment	9/30/16 1:45 PM	6010C, 6020A, 7471A

II. Sample Management

Anomalies regarding sample management are noted below. The samples for low level mercury analysis were received at TestAmerica-Pensacola intact at 19.1 °C. No initial preservation (including cooling) is required for this method. The samples for all other analyses were received at TestAmerica-Savannah within the temperature limits of >0°C to <6°C. The samples were received intact and properly preserved. Custody seals on shipping and sample containers were intact except as noted below. The chains-of-custody (COCs) were appropriately signed and dated by field and laboratory personnel except as noted below.

The following issues were noted:

- On the COC for TA-Pensacola, the organization was not identified on the COC for laboratory sample receipt.
- On both COCs, corrections were initialed but not dated.
- Custody seals were not present on sample containers received at TA-Pensacola.

.

Data Qualifier Reference Table

Qualifier	Organics	Inorganics
U	The analyte was analyzed for, but was not detected above the reported sample quantitation limit. The associated value is the quantitation limit or the estimated detection limit for dioxins or PCB congeners.	The material was analyzed for, but was not detected above the level of the associated value. The associated value is either the sample quantitation limit or the sample detection limit. The associated value is the sample detection limit or the quantitation limit for perchlorate only.
UB	The analyte was detected in the sample and in either the associated laboratory blank or field blank. If detected below the reporting limit (RL) the analyte result was reported as non-detected at the RL due to blank contamination. If detected above the RL, the analyte result was reported as non-detected at the reported result due to blank contamination.	The analyte was detected in the sample and in either the associated laboratory blank or field blank. If detected below the reporting limit (RL) the analyte result was reported as non-detected at the RL due to blank contamination. If detected above the RL, the analyte result was reported as non-detected at the reported result due to blank contamination.
J	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
J+	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential positive bias.
J-	Not applicable	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample, and may have a potential negative bias.

Qualifier	Organics	Inorganics
UJ	The analyte was not deemed above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The material was analyzed for, but was not detected. The associated value is an estimate and may be inaccurate or imprecise.
UJB	The analyte was detected in the sample and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at either the RL or the reported result. The reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.	The analyte was detected in the sample and in either the associated laboratory blank or field blank; the analyte result was reported as non-detected at either the RL or the reported result. The reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
N	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."	Not applicable.
NJ	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.	Not applicable.
R	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.	The data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and to meet quality control criteria. The presence or absence of the analyte cannot be verified.

Qualification Code Reference Table

Qualifier	Organics	Inorganics
H	Holding times were exceeded.	Holding times were exceeded.
S	Surrogate recovery was outside QC limits.	The sequence or number of standards used for the calibration was incorrect
C	Calibration %RSD or %D was noncompliant.	Correlation coefficient is <0.995 or calibration was noncompliant.
R	Calibration RRF was <0.05.	%R for calibration is not within control limits.
B	Presumed contamination as indicated by the preparation (method) blank results.	Presumed contamination as indicated by the preparation (method) or calibration blank results.
L	Laboratory Blank Spike/Blank Spike Duplicate %R was not within control limits.	Laboratory Control Sample %R was not within control limits.
L1	LCS/LCSD RPD was outside control limits.	LCS/LCSD RPD was outside control limits.
Q	MS/MSD recovery was poor.	MS recovery was poor.
Q1	MS/MSD RPD was outside control limits.	MS/MSD RPD was outside control limits.
E	Not applicable.	Duplicates showed poor agreement.
I	Internal standard performance was unsatisfactory.	ICP ICS results were unsatisfactory.
A	Not applicable.	ICP Serial Dilution %D were not within control limits.
M	Tuning (BFB or DFTPP) was noncompliant.	ICPMS tune was not compliant.
T	Presumed contamination as indicated by the trip blank results.	Not applicable.
+	False positive – reported compound was not present.	Not applicable.
-	False negative – compound was present but not reported.	Not applicable.
F	Presumed contamination as indicated by the FB or ER results.	Presumed contamination as indicated by the FB or ER results.
F1	Field duplicate results were outside the control limit.	Field duplicate results were outside the control limit.
$	Reported result or other information was incorrect.	Reported result or other information was incorrect.

Qualifier	Organics	Inorganics
?	TIC identity or reported retention time has been changed.	Not applicable.
D	The analysis with this flag should not be used because another more technically sound analysis is available.	The analysis with this flag should not be used because another more technically sound analysis is available.
P	Instrument performance for pesticides was poor.	Post Digestion Spike recovery was not within control limits.
*II, *III	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.	Unusual problems found with the data that have been described in Section II, "Sample Management," or Section III, "Method Analyses." The number following the asterisk (*) will indicate the report section where a description of the problem can be found.

III. Method Analyses

A. Contract Laboratory Program Statement of Work for Inorganic Superfund Methods 200.7, 200.8, 245.1, 1631E, 6010C, 6020A, 7471A—Metals, Low Level Mercury, and Mercury

Reviewed By: Marcia Hilchey
Date Reviewed: October 25 and November 2, 2016

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *Quality Assurance Project Plan for U.S. EPA Region 8 CERCLA Site Assessment; Sampling and Analysis Plan/Quality Assurance Project Plan for Gold King Mine Release, Silverton, San Juan County, Colorado* (2015); *United States Environmental Protection Agency Contract Laboratory Program Statement of Work for Inorganic Superfund Methods; EPA Methods 200.7, 200.8, 245.1, 1631E, 6010C, 6020A, and 7471A;* and the *National Functional Guidelines for Inorganic Superfund Data Review* (2014).

- Holding Times: The analytical holding times, 28 days for low level mercury that has been oxidized in the sample bottle, 28 days for mercury, and six months for the remaining metals, were met.

- Analytical Method Blanks: No target analytes were reported in the method blanks at sufficient concentrations to qualify associated site sample results.

- Laboratory Control Samples (LCS): The LCS recoveries were within the laboratory control limits of 75-125% for methods 6010C and 6020A, 79-121% for method 1631E, 85-115% for methods 200.7, 200.8 and 245.1, and 80-120% for method 7471A. The LCS/LCSD RPD was within the control limit of ≤20% for method 1631E.

- Laboratory Duplicates: Laboratory duplicate analyses were not performed on samples from this SDG. Method precision was evaluated based on matrix spike/matrix spike duplicate results and/or LCS/LCSD results.

- Matrix Spike/Matrix Spike Duplicate (MS/MSD): MS/MSD analyses were performed on samples SJMC_092916 (dissolved) and SJMH_093016 (dissolved) for methods 200.7 and 200.8, samples SJMH_093016 (dissolved) and LVW-020_100216 (total) for method 245.1, and sample FW-040_SED_100216 for method 7471A. MS/MSD analyses were not performed for the remaining analyses. Results were not assessed when the native concentration was more than 4× the spike amount. The recoveries were within the laboratory control limits of 75-125% for method 200.7, and 70-130% for methods 200.8 and 245.1. The recoveries for mercury by method 7471A (135%/131%) exceeded the control

limits of 80-120%. Associated detected results were qualified as estimated with high potential bias (J+) in the soil samples. The RPDs were ≤20% for all target analytes

- Post Digestion Spike (PDS): There were no PDS analyses reported in this SDG.

- Serial Dilution: Serial dilution analyses were not reported in this SDG.

- Field QC Samples: MEC^X evaluated field quality control (QC) samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below:

    - Field Blanks and Equipment Rinsates: Field blank or equipment blank samples were not identified for this SDG.

    - Field Duplicates: Samples SJBB_093016 and SJBB_093016D, and samples SJBB_SED_093016 and SJBB_SED_093016D were identified as field duplicate pairs. For samples SJBB_093016/SJBB_093016B, RPDs were within the control limit of ≤30% for all target analytes greater than the reporting limit (RL), and within the reasonable control limit of ±RL for all results <RL, except as noted in the table below. Results for the RPD outliers were qualified as estimated (J).

Analyte	RPD or ±RL
total aluminum	76%
total arsenic	33%
total chromium	>RL
total cobalt	45%
total iron	77%
total vanadium	62%
total zinc	33%

For samples SJBB_SED_093016/SJBB_SED_093016D all FD RPDs met the control limit of ≤50% for all target analytes greater than RL and ±RL for all results <RL. The field duplicate pairs were considered to be in acceptable agreement.

B. Methods SM2340B, SM2320B, SM2540D, SM5310B—Total Hardness by calculation, Total Alkalinity, Total Suspended Solids (TSS), Dissolved Organic Carbon (DOC), Total Organic Carbon (TOC)

Reviewed By: M. Hilchey
Date Reviewed: October 25, 2016

The samples listed in Table 1 for these analyses were validated based on the guidelines outlined in the *Quality Assurance Project Plan for U.S. EPA Region 8 CERCLA Site Assessment; Sampling and Analysis Plan/Quality Assurance Project Plan for Gold King Mine Release, Silverton, San Juan County, Colorado* (2015); *United States Environmental Protection Agency Contract Laboratory Program Statement of Work for Inorganic Superfund Methods; Standard Methods for the Examination of Water and Wastewater* 2340B, 2320B, 2540D and 5310B; and the *National Functional Guidelines for Superfund Inorganic Data Review* (2014).

- Holding Times: The analytical holding times, as listed below, were met.
    - Total Hardness (SM2340B) – 180 days
    - Total Alkalinity (SM2320B) – 14 days
    - Total Suspended Solids (SM2540D) – 7 days
    - Total Organic Carbon (SM5310B) – 28 days
    - Dissolved Organic Carbon (SM5310B) – 28 days

- Analytical Method Blanks: There were no detects in the method blanks.

- Laboratory Control Samples: LCS/LCSD recoveries were within the laboratory control limits of 80-120% for all methods, and RPDs were within the laboratory control limits of ≤30% for alkalinity, ≤20% for DOC, and ≤25% for TSS and TOC.

- Laboratory Duplicates: Laboratory duplicate analyses were performed on sample SJBB_093016 for total alkalinity, and on samples FW-040_100216 and SJCH_100116 for TSS. The RPDs met the QAPP control limit of ≤20%.

- Matrix Spike/Matrix Spike Duplicate (MS/MSD): MS/MSD analyses were performed on sample LVW-020_100216 for TOC and on sample SJBB_093016 for DOC. All laboratory recovery and RPD acceptance criteria were met. MS/MSD analyses were not performed on the remaining methods.

- Field QC Samples: MEC^X evaluated field quality control (QC) samples, and if necessary, qualified based on method blanks and other laboratory QC results affecting the usability of the field QC data. MEC^X used the remaining detects to evaluate the associated site samples. Findings associated with field QC samples are summarized below:

- Field Blanks and Equipment Rinsates: This SDG had no identified field blank or equipment rinsate samples.

- Field Duplicates: Samples SJBB_093016 and SJBB_093016D, and samples SJBB_SED_093016 and SJBB_SED_093016D were identified as field duplicate pairs. For samples SJBB_093016/SJBB_093016B, RPDs were within the control limit of ≤30% for all target analytes greater than the reporting limit (RL), and within the reasonable control limit of ±RL for all results <RL. For samples SJBB_SED_093016/SJBB_SED_093016D, RPDs were within the control limit of ≤50% for all target analytes greater than RL and ±RL for all results <RL. The field duplicate pairs were considered to be in good agreement.

Validated Sample Result Forms: 680-130444-1

Analysis Method 1631E

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	D	7439-97-6	0.2	0.5	0.2	ng/L	U	U	
Mercury	T	7439-97-6	3.5	0.5	0.2	ng/L			

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	D	7439-97-6	1.5	0.5	0.2	ng/L			
Mercury	T	7439-97-6	84	2.5	1	ng/L			

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	D	7439-97-6	0.3	0.5	0.2	ng/L	J	J	
Mercury	T	7439-97-6	6.5	0.5	0.2	ng/L			

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	7	0.5	0.2	ng/L			
Mercury	D	7439-97-6	0.59	0.5	0.2	ng/L			

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	D	7439-97-6	0.2	0.5	0.2	ng/L	J	J	
Mercury	T	7439-97-6	3.1	0.5	0.2	ng/L			

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes

Analysis Method 1631E

Mercury	D	7439-97-6	0.23	0.5	0.2	ng/L	J	J
Mercury	T	7439-97-6	4.8	0.5	0.2	ng/L		

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	5.7	0.5	0.2	ng/L			
Mercury	D	7439-97-6	0.28	0.5	0.2	ng/L	J	J	

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	D	7439-97-6	0.33	0.5	0.2	ng/L	J	J	
Mercury	T	7439-97-6	5.5	0.5	0.2	ng/L			

Analysis Method 200.7 Rev 4.4

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	1000	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	30	200	24	ug/L	J	J	
Calcium	T	7440-70-2	73000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	72000	500	25	ug/L			
Iron	T	7439-89-6	880	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	17	50	17	ug/L	U	U	
Magnesium	T	7439-95-4	10000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	10000	500	33	ug/L			
Potassium	T	7440-09-7	2900	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	2700	1000	17	ug/L			
Sodium	T	7440-23-5	20000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	20000	1000	480	ug/L			

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	20000	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	1000	200	24	ug/L			

Analysis Method 200.7 Rev 4.4

Calcium	T	7440-70-2	410000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	110000	500	25	ug/L			
Iron	T	7439-89-6	10000	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	530	50	17	ug/L			
Magnesium	T	7439-95-4	48000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	18000	500	33	ug/L			
Potassium	T	7440-09-7	12000	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	5100	1000	17	ug/L			
Sodium	T	7440-23-5	41000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	38000	1000	480	ug/L			

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	6700	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	24	200	24	ug/L	U	U	
Calcium	T	7440-70-2	80000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	70000	500	25	ug/L			
Iron	T	7439-89-6	5000	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	17	50	17	ug/L	U	U	
Magnesium	T	7439-95-4	18000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	15000	500	33	ug/L			
Potassium	T	7440-09-7	4900	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	3000	1000	17	ug/L			
Sodium	T	7440-23-5	32000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	31000	1000	480	ug/L			

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	4400	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	24	200	24	ug/L	U	U	
Calcium	T	7440-70-2	79000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	72000	500	25	ug/L			
Iron	T	7439-89-6	3100	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	28	50	17	ug/L	J	J	
Magnesium	T	7439-95-4	17000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	15000	500	33	ug/L			

Analysis Method 200.7 Rev 4.4

Potassium	T	7440-09-7	4300	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	3300	1000	17	ug/L			
Sodium	T	7440-23-5	33000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	32000	1000	480	ug/L			

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	2500	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	24	200	24	ug/L	U	U	
Calcium	T	7440-70-2	61000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	59000	500	25	ug/L			
Iron	T	7439-89-6	1800	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	17	50	17	ug/L	U	U	
Magnesium	T	7439-95-4	9000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	8500	500	33	ug/L			
Potassium	T	7440-09-7	3100	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	2600	1000	17	ug/L			
Sodium	T	7440-23-5	24000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	23000	1000	480	ug/L			

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	4100	200	24	ug/L			
Aluminum, Dissolved	D	7429-90-5	24	200	24	ug/L	U	U	
Calcium	T	7440-70-2	70000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	64000	500	25	ug/L			
Iron	T	7439-89-6	3200	50	17	ug/L			
Iron, Dissolved	D	7439-89-6	17	50	17	ug/L	U	U	
Magnesium	T	7439-95-4	11000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	10000	500	33	ug/L			
Potassium	T	7440-09-7	3800	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	2800	1000	17	ug/L			
Sodium	T	7440-23-5	29000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	28000	1000	480	ug/L			

Analysis Method 200.7 Rev 4.4

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	3400	200	24	ug/L		J	F1
Aluminum, Dissolved	D	7429-90-5	24	200	24	ug/L	U	U	
Calcium	T	7440-70-2	81000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	72000	500	25	ug/L			
Iron	T	7439-89-6	2500	50	17	ug/L		J	F1
Iron, Dissolved	D	7439-89-6	17	50	17	ug/L	U	U	
Magnesium	T	7439-95-4	17000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	15000	500	33	ug/L			
Potassium	T	7440-09-7	3900	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	3100	1000	17	ug/L			
Sodium	T	7440-23-5	32000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	32000	1000	480	ug/L			

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	7600	200	24	ug/L		J	F1
Aluminum, Dissolved	D	7429-90-5	24	200	24	ug/L	U	U	
Calcium	T	7440-70-2	81000	500	25	ug/L			
Calcium, Dissolved	D	7440-70-2	71000	500	25	ug/L			
Iron	T	7439-89-6	5600	50	17	ug/L		J	F1
Iron, Dissolved	D	7439-89-6	17	50	17	ug/L	U	U	
Magnesium	T	7439-95-4	18000	500	33	ug/L			
Magnesium, Dissolved	D	7439-95-4	15000	500	33	ug/L			
Potassium	T	7440-09-7	5100	1000	17	ug/L			
Potassium, Dissolved	D	7440-09-7	3000	1000	17	ug/L			
Sodium	T	7440-23-5	33000	1000	480	ug/L			
Sodium, Dissolved	D	7440-23-5	31000	1000	480	ug/L			

Analysis Method 200.8

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	19	10	4.6	ug/L			
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	0.37	1	0.37	ug/L	U	U	
Arsenic, Dissolved	D	7440-38-2	0.58	1	0.37	ug/L	J	J	
Barium	T	7440-39-3	84	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	74	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.19	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.059	0.5	0.043	ug/L	J	J	
Chromium	T	7440-47-3	1	2	1	ug/L	U	U	
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	0.66	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	0.25	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	2.3	5	0.5	ug/L	J	J	
Copper, Dissolved	D	7440-50-8	0.5	5	0.5	ug/L	U	U	
Lead	T	7439-92-1	2.9	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.06	0.3	0.06	ug/L	U	U	
Manganese	T	7439-96-5	110	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	42	2.5	1.2	ug/L			
Molybdenum	T	7439-98-7	0.97	1	0.45	ug/L	J	J	
Molybdenum, Dissolved	D	7439-98-7	1.2	1	0.45	ug/L			
Nickel	T	7440-02-0	2.6	5	0.4	ug/L	J	J	
Nickel, Dissolved	D	7440-02-0	2.3	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	1.5	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	0.45	1	0.3	ug/L	J	J	
Zinc	T	7440-66-6	26	20	2.8	ug/L			
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 200.8

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	880	10	4.6	ug/L			
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	5.2	1	0.37	ug/L			
Arsenic, Dissolved	D	7440-38-2	1.2	1	0.37	ug/L			
Barium	T	7440-39-3	380	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	190	2	0.14	ug/L			
Beryllium	T	7440-41-7	1.7	0.4	0.15	ug/L			
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	1	0.5	0.043	ug/L			
Cadmium, Dissolved	D	7440-43-9	0.11	0.5	0.043	ug/L	J	J	
Chromium	T	7440-47-3	18	2	1	ug/L			
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	12	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	0.69	0.4	0.12	ug/L			
Copper	T	7440-50-8	12	5	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	1.3	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	7.5	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.44	0.3	0.06	ug/L			
Manganese	T	7439-96-5	1100	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	22	2.5	1.2	ug/L			
Molybdenum	T	7439-98-7	0.56	1	0.45	ug/L	J	J	
Molybdenum, Dissolved	D	7439-98-7	1.7	1	0.45	ug/L			
Nickel	T	7440-02-0	28	5	0.4	ug/L			
Nickel, Dissolved	D	7440-02-0	4.3	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.13	0.2	0.1	ug/L	J	J	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	47	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	6.2	1	0.3	ug/L			
Zinc	T	7440-66-6	57	20	2.8	ug/L			
Zinc, Dissolved	D	7440-66-6	3.2	20	2.8	ug/L	J	J	

Analysis Method 200.8

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	6.9	10	4.6	ug/L	J	J	
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	1.9	1	0.37	ug/L			
Arsenic, Dissolved	D	7440-38-2	0.87	1	0.37	ug/L	J	J	
Barium	T	7440-39-3	140	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	75	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.33	0.4	0.15	ug/L	J	J	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.092	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.13	0.5	0.043	ug/L	J	J	
Chromium	T	7440-47-3	3.6	2	1	ug/L			
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	2.3	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	0.25	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	6.4	5	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	0.82	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	4.8	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.06	0.3	0.06	ug/L	U	U	
Manganese	T	7439-96-5	160	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	1.2	2.5	1.2	ug/L	U	U	
Molybdenum	T	7439-98-7	1.4	1	0.45	ug/L			
Molybdenum, Dissolved	D	7439-98-7	1.3	1	0.45	ug/L			
Nickel	T	7440-02-0	5.8	5	0.4	ug/L			
Nickel, Dissolved	D	7440-02-0	2.4	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	10	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	1.5	1	0.3	ug/L			
Zinc	T	7440-66-6	25	20	2.8	ug/L			
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 200.8

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	7.1	10	4.6	ug/L	J	J	
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	1.5	1	0.37	ug/L			
Arsenic, Dissolved	D	7440-38-2	0.93	1	0.37	ug/L	J	J	
Barium	T	7440-39-3	140	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	80	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.28	0.4	0.15	ug/L	J	J	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.15	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.052	0.5	0.043	ug/L	J	J	
Chromium	T	7440-47-3	2	2	1	ug/L			
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	1.7	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	0.25	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	5.2	5	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	1	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	4.3	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.06	0.3	0.06	ug/L	U	U	
Manganese	T	7439-96-5	150	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	1.2	2.5	1.2	ug/L	J	J	
Molybdenum	T	7439-98-7	1.1	1	0.45	ug/L			
Molybdenum, Dissolved	D	7439-98-7	1.4	1	0.45	ug/L			
Nickel	T	7440-02-0	4.8	5	0.4	ug/L	J	J	
Nickel, Dissolved	D	7440-02-0	2.5	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	7.5	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	2	1	0.3	ug/L			
Zinc	T	7440-66-6	20	20	2.8	ug/L			
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 200.8

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	12	10	4.6	ug/L			
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	0.92	1	0.37	ug/L	J	J	
Arsenic, Dissolved	D	7440-38-2	0.68	1	0.37	ug/L	J	J	
Barium	T	7440-39-3	90	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	67	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.16	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.043	0.5	0.043	ug/L	U	U	
Chromium	T	7440-47-3	1	2	1	ug/L	J	J	
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	0.96	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	0.26	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	3	5	0.5	ug/L	J	J	
Copper, Dissolved	D	7440-50-8	0.54	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	2.5	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.06	0.3	0.06	ug/L	U	U	
Manganese	T	7439-96-5	89	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	6.5	2.5	1.2	ug/L			
Molybdenum	T	7439-98-7	1.1	1	0.45	ug/L			
Molybdenum, Dissolved	D	7439-98-7	1.1	1	0.45	ug/L			
Nickel	T	7440-02-0	3	5	0.4	ug/L	J	J	
Nickel, Dissolved	D	7440-02-0	2.1	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	3.6	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	0.78	1	0.3	ug/L	J	J	
Zinc	T	7440-66-6	18	20	2.8	ug/L	J	J	
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 200.8

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	7.5	10	4.6	ug/L	J	J	
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	1.5	1	0.37	ug/L			
Arsenic, Dissolved	D	7440-38-2	0.37	1	0.37	ug/L	U	U	
Barium	T	7440-39-3	120	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	75	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.21	0.4	0.15	ug/L	J	J	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.19	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.095	0.5	0.043	ug/L	J	J	
Chromium	T	7440-47-3	2.1	2	1	ug/L			
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	1.8	0.4	0.12	ug/L			
Cobalt, Dissolved	D	7440-48-4	0.23	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	5.4	5	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	0.64	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	4.6	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.063	0.3	0.06	ug/L	J	J	
Manganese	T	7439-96-5	160	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	2.9	2.5	1.2	ug/L			
Molybdenum	T	7439-98-7	1.1	1	0.45	ug/L			
Molybdenum, Dissolved	D	7439-98-7	1.3	1	0.45	ug/L			
Nickel	T	7440-02-0	4.3	5	0.4	ug/L	J	J	
Nickel, Dissolved	D	7440-02-0	2.3	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	6.5	1	0.3	ug/L			
Vanadium, Dissolved	D	7440-62-2	1.2	1	0.3	ug/L			
Zinc	T	7440-66-6	22	20	2.8	ug/L			
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 200.8

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	5.3	10	4.6	ug/L	J	J	
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	1.5	1	0.37	ug/L		J	F1
Arsenic, Dissolved	D	7440-38-2	0.54	1	0.37	ug/L	J	J	
Barium	T	7440-39-3	130	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	82	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.26	0.4	0.15	ug/L	J	J	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.24	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.043	0.5	0.043	ug/L	U	U	
Chromium	T	7440-47-3	1.5	2	1	ug/L	J	J	F1
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	1.7	0.4	0.12	ug/L		J	F1
Cobalt, Dissolved	D	7440-48-4	0.25	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	5.3	5	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	0.86	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	4.3	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.06	0.3	0.06	ug/L	U	U	
Manganese	T	7439-96-5	180	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	1.2	2.5	1.2	ug/L	U	U	
Molybdenum	T	7439-98-7	0.98	1	0.45	ug/L	J	J	
Molybdenum, Dissolved	D	7439-98-7	1.4	1	0.45	ug/L			
Nickel	T	7440-02-0	4.5	5	0.4	ug/L	J	J	
Nickel, Dissolved	D	7440-02-0	2.5	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	6.3	1	0.3	ug/L		J	F1
Vanadium, Dissolved	D	7440-62-2	1.6	1	0.3	ug/L			
Zinc	T	7440-66-6	20	20	2.8	ug/L		J	F1
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 200.8

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum, Dissolved	D	7429-90-5	5.3	10	4.6	ug/L	J	J	
Antimony	T	7440-36-0	0.4	1	0.4	ug/L	U	U	
Antimony, Dissolved	D	7440-36-0	0.4	1	0.4	ug/L	U	U	
Arsenic	T	7440-38-2	2.1	1	0.37	ug/L		J	F1
Arsenic, Dissolved	D	7440-38-2	0.82	1	0.37	ug/L	J	J	
Barium	T	7440-39-3	160	2	0.14	ug/L			
Barium, Dissolved	D	7440-39-3	81	2	0.14	ug/L			
Beryllium	T	7440-41-7	0.34	0.4	0.15	ug/L	J	J	
Beryllium, Dissolved	D	7440-41-7	0.15	0.4	0.15	ug/L	U	U	
Cadmium	T	7440-43-9	0.15	0.5	0.043	ug/L	J	J	
Cadmium, Dissolved	D	7440-43-9	0.071	0.5	0.043	ug/L	J	J	
Chromium	T	7440-47-3	4.3	2	1	ug/L		J	F1
Chromium, Dissolved	D	7440-47-3	1	2	1	ug/L	U	U	
Cobalt	T	7440-48-4	2.7	0.4	0.12	ug/L		J	F1
Cobalt, Dissolved	D	7440-48-4	0.25	0.4	0.12	ug/L	J	J	
Copper	T	7440-50-8	7.1	5	0.5	ug/L			
Copper, Dissolved	D	7440-50-8	0.85	5	0.5	ug/L	J	J	
Lead	T	7439-92-1	5.6	0.3	0.06	ug/L			
Lead, Dissolved	D	7439-92-1	0.06	0.3	0.06	ug/L	U	U	
Manganese	T	7439-96-5	190	2.5	1.2	ug/L			
Manganese, Dissolved	D	7439-96-5	1.2	2.5	1.2	ug/L	U	U	
Molybdenum	T	7439-98-7	1.5	1	0.45	ug/L			
Molybdenum, Dissolved	D	7439-98-7	1.3	1	0.45	ug/L			
Nickel	T	7440-02-0	6.2	5	0.4	ug/L			
Nickel, Dissolved	D	7440-02-0	2.5	5	0.4	ug/L	J	J	
Selenium	T	7782-49-2	0.58	2	0.58	ug/L	U	U	
Selenium, Dissolved	D	7782-49-2	0.58	2	0.58	ug/L	U	U	
Silver	T	7440-22-4	0.1	1	0.1	ug/L	U	U	
Silver, Dissolved	D	7440-22-4	0.1	1	0.1	ug/L	U	U	
Thallium	T	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Thallium, Dissolved	D	7440-28-0	0.1	0.2	0.1	ug/L	U	U	
Vanadium	T	7440-62-2	12	1	0.3	ug/L		J	F1
Vanadium, Dissolved	D	7440-62-2	1.6	1	0.3	ug/L			
Zinc	T	7440-66-6	28	20	2.8	ug/L		J	F1
Zinc, Dissolved	D	7440-66-6	2.8	20	2.8	ug/L	U	U	

Analysis Method 2320B-2011

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	120	5	5	mg/L			

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	110	5	5	mg/L			

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	120	5	5	mg/L			

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	120	5	5	mg/L			

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	110	5	5	mg/L			

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	110	5	5	mg/L			

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	120	5	5	mg/L			

Analysis Method 2320B-2011

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Alkalinity	T	STL00171	140	5	5	mg/L			

Analysis Method 2340B-2011

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	220	3.3	3.3	mg/L			

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	1200	3.3	3.3	mg/L			

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	270	3.3	3.3	mg/L			

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	270	3.3	3.3	mg/L			

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	190	3.3	3.3	mg/L			

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	220	3.3	3.3	mg/L			

Analysis Method 2340B-2011

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	270	3.3	3.3	mg/L			

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Hardness	T	STL00009	280	3.3	3.3	mg/L			

Analysis Method 245.1

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Analysis Method 245.1

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.08	0.2	0.08	ug/L	U	U	
Mercury, Dissolved	D	7439-97-6	0.08	0.2	0.08	ug/L	U	U	

Analysis Method 2540 D-2011

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	73	4	4	mg/L			

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	3600	100	100	mg/L			

Analysis Method 2540 D-2011

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	270	9.8	9.8	mg/L			

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	250	14	14	mg/L			

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	200	7.7	7.7	mg/L			

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	260	10	10	mg/L			

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	290	10	10	mg/L			

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Total Suspended Solids	T	STL00161	300	16	16	mg/L			

Analysis Method 5310 B-2011

Sample Name FW-040_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-1 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	2.1	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	1.6	1	0.5	mg/L			

Sample Name SJCH_100116 **Matrix Type:** Water

Lab Sample Name: 680-130444-11 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	3.3	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	3.9	1	0.5	mg/L			

Sample Name SJMC_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-13 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	3.9	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	2.8	1	0.5	mg/L			

Sample Name SJMH_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-15 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	4	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	2.7	1	0.5	mg/L			

Sample Name LVW-020_100216 **Matrix Type:** Water

Lab Sample Name: 680-130444-3 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	3.3	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	2.3	1	0.5	mg/L			

Analysis Method 5310 B-2011

Sample Name SJ4C_092916 **Matrix Type:** Water

Lab Sample Name: 680-130444-5 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	3.8	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	2.3	1	0.5	mg/L			

Sample Name SJBB_093016 **Matrix Type:** Water

Lab Sample Name: 680-130444-7 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	3.2	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	2.6	1	0.5	mg/L			

Sample Name SJBB_093016D **Matrix Type:** Water

Lab Sample Name: 680-130444-9 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Dissolved Organic Carbon	T	7440-44-0	4.1	1	0.5	mg/L			
Total Organic Carbon	T	7440-44-0	2.7	1	0.5	mg/L			

Analysis Method 6010C

Sample Name SJBB_SED_093016D **Matrix Type:** Solid

Lab Sample Name: 680-130444-10 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	5600	22	3.4	mg/Kg			
Calcium	T	7440-70-2	19000	55	5.8	mg/Kg	B		
Iron	T	7439-89-6	8000	22	5.9	mg/Kg			
Magnesium	T	7439-95-4	4000	55	9.9	mg/Kg			
Potassium	T	7440-09-7	1300	110	2.8	mg/Kg			
Sodium	T	7440-23-5	220	220	53	mg/Kg			

Sample Name SJCH_SED_100116 **Matrix Type:** Solid

Lab Sample Name: 680-130444-12 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	3200	21	3.3	mg/Kg			

Analysis Method 6010C

Calcium	T	7440-70-2	29000	53	5.5	mg/Kg	B	
Iron	T	7439-89-6	5500	21	5.6	mg/Kg		
Magnesium	T	7439-95-4	5500	53	9.4	mg/Kg		
Potassium	T	7440-09-7	1000	110	2.6	mg/Kg		
Sodium	T	7440-23-5	120	210	51	mg/Kg	J	J

Sample Name SJMC_SED_092916 **Matrix Type:** Solid

Lab Sample Name: 680-130444-14 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	11000	24	3.8	mg/Kg			
Calcium	T	7440-70-2	34000	61	6.3	mg/Kg	B		
Iron	T	7439-89-6	14000	24	6.4	mg/Kg			
Magnesium	T	7439-95-4	7900	61	11	mg/Kg			
Potassium	T	7440-09-7	2600	120	3	mg/Kg			
Sodium	T	7440-23-5	420	240	58	mg/Kg			

Sample Name SJMH_SED_093016 **Matrix Type:** Solid

Lab Sample Name: 680-130444-16 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	8800	24	3.8	mg/Kg			
Calcium	T	7440-70-2	32000	61	6.3	mg/Kg	B		
Iron	T	7439-89-6	12000	24	6.4	mg/Kg			
Magnesium	T	7439-95-4	6200	61	11	mg/Kg			
Potassium	T	7440-09-7	2000	120	3	mg/Kg			
Sodium	T	7440-23-5	320	240	58	mg/Kg			

Sample Name FW-040_SED_100216 **Matrix Type:** Solid

Lab Sample Name: 680-130444-2 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	11000	24	3.7	mg/Kg			
Calcium	T	7440-70-2	11000	60	6.2	mg/Kg	B		
Iron	T	7439-89-6	16000	24	6.4	mg/Kg			
Magnesium	T	7439-95-4	3100	60	11	mg/Kg			
Potassium	T	7440-09-7	1600	120	3	mg/Kg			
Sodium	T	7440-23-5	250	240	58	mg/Kg			

Sample Name LVW-020_SED_100216 **Matrix Type:** Solid

Lab Sample Name: 680-130444-4 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes

Analysis Method 6010C

Aluminum	T	7429-90-5	5200	22	3.4	mg/Kg				
Calcium	T	7440-70-2	4900	55	5.7	mg/Kg	B			
Iron	T	7439-89-6	8300	22	5.8	mg/Kg				
Magnesium	T	7439-95-4	1600	55	9.7	mg/Kg				
Potassium	T	7440-09-7	960	110	2.7	mg/Kg				
Sodium	T	7440-23-5	250	220	52	mg/Kg				

Sample Name SJ4C_SED_092916 **Matrix Type:** Solid

Lab Sample Name: 680-130444-6 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	6200	24	3.7	mg/Kg			
Calcium	T	7440-70-2	23000	60	6.3	mg/Kg	B		
Iron	T	7439-89-6	8400	24	6.4	mg/Kg			
Magnesium	T	7439-95-4	5600	60	11	mg/Kg			
Potassium	T	7440-09-7	1500	120	3	mg/Kg			
Sodium	T	7440-23-5	430	240	58	mg/Kg			

Sample Name SJBB_SED_093016 **Matrix Type:** Solid

Lab Sample Name: 680-130444-8 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Aluminum	T	7429-90-5	5200	22	3.4	mg/Kg			
Calcium	T	7440-70-2	18000	55	5.7	mg/Kg	B		
Iron	T	7439-89-6	8000	22	5.8	mg/Kg			
Magnesium	T	7439-95-4	3800	55	9.8	mg/Kg			
Potassium	T	7440-09-7	1200	110	2.7	mg/Kg			
Sodium	T	7440-23-5	220	220	53	mg/Kg			

Analysis Method 6020A

Sample Name SJBB_SED_093016D **Matrix Type:** Solid

Lab Sample Name: 680-130444-10 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.11	1.1	0.11	mg/Kg	U	U	
Arsenic	T	7440-38-2	2.9	0.33	0.11	mg/Kg			
Barium	T	7440-39-3	220	0.55	0.067	mg/Kg			
Beryllium	T	7440-41-7	0.39	0.055	0.017	mg/Kg			
Cadmium	T	7440-43-9	0.11	0.055	0.017	mg/Kg			
Chromium	T	7440-47-3	5.1	1.1	0.12	mg/Kg			
Cobalt	T	7440-48-4	3.3	0.055	0.011	mg/Kg			
Copper	T	7440-50-8	6.4	0.55	0.14	mg/Kg	B		
Lead	T	7439-92-1	6.5	0.22	0.055	mg/Kg			

Analysis Method 6020A

Manganese	T	7439-96-5	230	1.1	0.13	mg/Kg		
Molybdenum	T	7439-98-7	0.4	1.1	0.089	mg/Kg	J	J
Nickel	T	7440-02-0	5.6	1.1	0.29	mg/Kg		
Selenium	T	7782-49-2	2.9	0.55	0.11	mg/Kg		
Silver	T	7440-22-4	0.023	0.11	0.011	mg/Kg	J	J
Thallium	T	7440-28-0	0.08	0.11	0.055	mg/Kg	J	J
Vanadium	T	7440-62-2	12	0.55	0.3	mg/Kg	B	
Zinc	T	7440-66-6	26	2.2	1.1	mg/Kg	B	

Sample Name SJCH_SED_100116 **Matrix Type:** Solid

Lab Sample Name: 680-130444-12 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.11	1.1	0.11	mg/Kg	U	U	
Arsenic	T	7440-38-2	1.7	0.32	0.11	mg/Kg			
Barium	T	7440-39-3	160	0.53	0.063	mg/Kg			
Beryllium	T	7440-41-7	0.22	0.053	0.016	mg/Kg			
Cadmium	T	7440-43-9	0.064	0.053	0.016	mg/Kg			
Chromium	T	7440-47-3	4.4	1.1	0.12	mg/Kg			
Cobalt	T	7440-48-4	2.2	0.053	0.011	mg/Kg			
Copper	T	7440-50-8	2.8	0.53	0.14	mg/Kg	B		
Lead	T	7439-92-1	4.3	0.21	0.053	mg/Kg			
Manganese	T	7439-96-5	220	1.1	0.13	mg/Kg			
Molybdenum	T	7439-98-7	0.17	1.1	0.085	mg/Kg	J	J	
Nickel	T	7440-02-0	4.3	1.1	0.27	mg/Kg			
Selenium	T	7782-49-2	2	0.53	0.11	mg/Kg			
Silver	T	7440-22-4	0.011	0.11	0.011	mg/Kg	U	U	
Thallium	T	7440-28-0	0.053	0.11	0.053	mg/Kg	U	U	
Vanadium	T	7440-62-2	8.5	0.53	0.29	mg/Kg	B		
Zinc	T	7440-66-6	14	2.1	1.1	mg/Kg	B		

Sample Name SJMC_SED_092916 **Matrix Type:** Solid

Lab Sample Name: 680-130444-14 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.14	1.2	0.12	mg/Kg	J	J	
Arsenic	T	7440-38-2	4.7	0.36	0.12	mg/Kg			
Barium	T	7440-39-3	230	0.61	0.073	mg/Kg			
Beryllium	T	7440-41-7	0.7	0.061	0.018	mg/Kg			
Cadmium	T	7440-43-9	0.17	0.061	0.018	mg/Kg			
Chromium	T	7440-47-3	9.8	1.2	0.13	mg/Kg			
Cobalt	T	7440-48-4	5.9	0.061	0.012	mg/Kg			
Copper	T	7440-50-8	12	0.61	0.16	mg/Kg	B		

Analysis Method 6020A

Lead	T	7439-92-1	11	0.24	0.061	mg/Kg		
Manganese	T	7439-96-5	360	1.2	0.14	mg/Kg		
Molybdenum	T	7439-98-7	0.7	1.2	0.097	mg/Kg	J	J
Nickel	T	7440-02-0	11	1.2	0.32	mg/Kg		
Selenium	T	7782-49-2	4.9	0.61	0.12	mg/Kg		
Silver	T	7440-22-4	0.039	0.12	0.012	mg/Kg	J	J
Thallium	T	7440-28-0	0.16	0.12	0.061	mg/Kg		
Vanadium	T	7440-62-2	21	0.61	0.33	mg/Kg	B	
Zinc	T	7440-66-6	43	2.4	1.2	mg/Kg	B	

Sample Name SJMH_SED_093016 **Matrix Type:** Solid

Lab Sample Name: 680-130444-16 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.12	1.2	0.12	mg/Kg	J	J	
Arsenic	T	7440-38-2	4.1	0.36	0.12	mg/Kg			
Barium	T	7440-39-3	210	0.61	0.073	mg/Kg			
Beryllium	T	7440-41-7	0.6	0.061	0.018	mg/Kg			
Cadmium	T	7440-43-9	0.17	0.061	0.018	mg/Kg			
Chromium	T	7440-47-3	8.4	1.2	0.13	mg/Kg			
Cobalt	T	7440-48-4	5.2	0.061	0.012	mg/Kg			
Copper	T	7440-50-8	11	0.61	0.16	mg/Kg	B		
Lead	T	7439-92-1	9.7	0.24	0.061	mg/Kg			
Manganese	T	7439-96-5	340	1.2	0.14	mg/Kg			
Molybdenum	T	7439-98-7	0.62	1.2	0.097	mg/Kg	J	J	
Nickel	T	7440-02-0	9.7	1.2	0.31	mg/Kg			
Selenium	T	7782-49-2	4.3	0.61	0.12	mg/Kg			
Silver	T	7440-22-4	0.069	0.12	0.012	mg/Kg	J	J	
Thallium	T	7440-28-0	0.14	0.12	0.061	mg/Kg			
Vanadium	T	7440-62-2	18	0.61	0.33	mg/Kg	B		
Zinc	T	7440-66-6	38	2.4	1.2	mg/Kg	B		

Sample Name FW-040_SED_100216 **Matrix Type:** Solid

Lab Sample Name: 680-130444-2 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.13	1.2	0.12	mg/Kg	J	J	
Arsenic	T	7440-38-2	5	0.36	0.12	mg/Kg			
Barium	T	7440-39-3	280	0.6	0.072	mg/Kg			
Beryllium	T	7440-41-7	0.83	0.06	0.018	mg/Kg			
Cadmium	T	7440-43-9	0.41	0.06	0.018	mg/Kg			
Chromium	T	7440-47-3	7.2	1.2	0.13	mg/Kg			
Cobalt	T	7440-48-4	6.9	0.06	0.012	mg/Kg			

Analysis Method 6020A

Copper	T	7440-50-8	20	0.6	0.16	mg/Kg	B	
Lead	T	7439-92-1	25	0.24	0.06	mg/Kg		
Manganese	T	7439-96-5	500	1.3	0.15	mg/Kg		
Molybdenum	T	7439-98-7	0.55	1.2	0.096	mg/Kg	J	J
Nickel	T	7440-02-0	8.1	1.2	0.31	mg/Kg		
Selenium	T	7782-49-2	5.1	0.6	0.12	mg/Kg		
Silver	T	7440-22-4	0.13	0.12	0.012	mg/Kg		
Thallium	T	7440-28-0	0.15	0.12	0.06	mg/Kg		
Vanadium	T	7440-62-2	20	0.6	0.32	mg/Kg	B	
Zinc	T	7440-66-6	140	2.4	1.2	mg/Kg	B	

Sample Name LVW-020_SED_100216 **Matrix Type:** Solid

Lab Sample Name: 680-130444-4 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.11	1.1	0.11	mg/Kg	U	U	
Arsenic	T	7440-38-2	3.1	0.33	0.11	mg/Kg			
Barium	T	7440-39-3	160	0.55	0.066	mg/Kg			
Beryllium	T	7440-41-7	0.41	0.055	0.016	mg/Kg			
Cadmium	T	7440-43-9	0.056	0.055	0.016	mg/Kg			
Chromium	T	7440-47-3	4.3	1.1	0.12	mg/Kg			
Cobalt	T	7440-48-4	3.7	0.055	0.011	mg/Kg			
Copper	T	7440-50-8	6.5	0.55	0.14	mg/Kg	B		
Lead	T	7439-92-1	6.3	0.22	0.055	mg/Kg			
Manganese	T	7439-96-5	230	1.1	0.13	mg/Kg			
Molybdenum	T	7439-98-7	0.53	1.1	0.087	mg/Kg	J	J	
Nickel	T	7440-02-0	4.7	1.1	0.28	mg/Kg			
Selenium	T	7782-49-2	3.2	0.55	0.11	mg/Kg			
Silver	T	7440-22-4	0.024	0.11	0.011	mg/Kg	J	J	
Thallium	T	7440-28-0	0.073	0.11	0.055	mg/Kg	J	J	
Vanadium	T	7440-62-2	11	0.55	0.29	mg/Kg	B		
Zinc	T	7440-66-6	26	2.2	1.1	mg/Kg	B		

Sample Name SJ4C_SED_092916 **Matrix Type:** Solid

Lab Sample Name: 680-130444-6 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.12	1.2	0.12	mg/Kg	U	U	
Arsenic	T	7440-38-2	2.9	0.36	0.12	mg/Kg			
Barium	T	7440-39-3	160	0.6	0.072	mg/Kg			
Beryllium	T	7440-41-7	0.37	0.06	0.018	mg/Kg			
Cadmium	T	7440-43-9	0.078	0.06	0.018	mg/Kg			
Chromium	T	7440-47-3	6.2	1.2	0.13	mg/Kg			

Analysis Method 6020A

Cobalt	T	7440-48-4	3.5	0.06	0.012	mg/Kg		
Copper	T	7440-50-8	6.1	0.6	0.16	mg/Kg	B	
Lead	T	7439-92-1	6.7	0.24	0.06	mg/Kg		
Manganese	T	7439-96-5	230	1.2	0.14	mg/Kg		
Molybdenum	T	7439-98-7	0.4	1.2	0.097	mg/Kg	J	J
Nickel	T	7440-02-0	6.7	1.2	0.31	mg/Kg		
Selenium	T	7782-49-2	3	0.6	0.12	mg/Kg		
Silver	T	7440-22-4	0.019	0.12	0.012	mg/Kg	J	J
Thallium	T	7440-28-0	0.079	0.12	0.06	mg/Kg	J	J
Vanadium	T	7440-62-2	12	0.6	0.33	mg/Kg	B	
Zinc	T	7440-66-6	26	2.4	1.2	mg/Kg	B	

Sample Name SJBB_SED_093016 **Matrix Type:** Solid

Lab Sample Name: 680-130444-8 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Antimony	T	7440-36-0	0.11	1.1	0.11	mg/Kg	U	U	
Arsenic	T	7440-38-2	2.6	0.33	0.11	mg/Kg			
Barium	T	7440-39-3	200	0.55	0.066	mg/Kg			
Beryllium	T	7440-41-7	0.33	0.055	0.016	mg/Kg			
Cadmium	T	7440-43-9	0.08	0.055	0.016	mg/Kg			
Chromium	T	7440-47-3	4.7	1.1	0.12	mg/Kg			
Cobalt	T	7440-48-4	3	0.055	0.011	mg/Kg			
Copper	T	7440-50-8	5.7	0.55	0.14	mg/Kg	B		
Lead	T	7439-92-1	6.3	0.22	0.055	mg/Kg			
Manganese	T	7439-96-5	250	1	0.12	mg/Kg			
Molybdenum	T	7439-98-7	0.37	1.1	0.088	mg/Kg	J	J	
Nickel	T	7440-02-0	5.2	1.1	0.29	mg/Kg			
Selenium	T	7782-49-2	2.9	0.55	0.11	mg/Kg			
Silver	T	7440-22-4	0.021	0.11	0.011	mg/Kg	J	J	
Thallium	T	7440-28-0	0.069	0.11	0.055	mg/Kg	J	J	
Vanadium	T	7440-62-2	11	0.55	0.3	mg/Kg	B		
Zinc	T	7440-66-6	24	2.2	1.1	mg/Kg	B		

Analysis Method 7471A

Sample Name SJBB_SED_093016D **Matrix Type:** Solid

Lab Sample Name: 680-130444-10 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.0083	0.021	0.0083	mg/Kg	U	U	

Analysis Method 7471A

Sample Name SJCH_SED_100116 **Matrix Type:** Solid

Lab Sample Name: 680-130444-12 **Sample Date:** 10/1/2016 2:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.0096	0.024	0.0096	mg/Kg	U	U	

Sample Name SJMC_SED_092916 **Matrix Type:** Solid

Lab Sample Name: 680-130444-14 **Sample Date:** 9/29/2016 4:00:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.012	0.025	0.01	mg/Kg	J	J+	Q

Sample Name SJMH_SED_093016 **Matrix Type:** Solid

Lab Sample Name: 680-130444-16 **Sample Date:** 9/30/2016 1:45:00 PM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.011	0.028	0.011	mg/Kg	U	U	

Sample Name FW-040_SED_100216 **Matrix Type:** Solid

Lab Sample Name: 680-130444-2 **Sample Date:** 10/2/2016 9:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.011	0.028	0.011	mg/Kg	J F1	J+	Q

Sample Name LVW-020_SED_100216 **Matrix Type:** Solid

Lab Sample Name: 680-130444-4 **Sample Date:** 10/2/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.0087	0.022	0.0087	mg/Kg	U	U	

Sample Name SJ4C_SED_092916 **Matrix Type:** Solid

Lab Sample Name: 680-130444-6 **Sample Date:** 9/29/2016 11:40:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.0097	0.024	0.0097	mg/Kg	U	U	

Sample Name SJBB_SED_093016 **Matrix Type:** Solid

Lab Sample Name: 680-130444-8 **Sample Date:** 9/30/2016 10:00:00 AM

Analyte	Total/Dissolved	CAS No	Result Value	Reporting Limit	MDL	Result Units	Lab Qualifier	Validation Qualifier	Validation Notes
Mercury	T	7439-97-6	0.0089	0.022	0.0089	mg/Kg	U	U	